

S.Maa-Application No.: 08/833,342 / Request for Reconsideration

*Part of B# 13
paper*REMARKS

The applicant respectfully requests reconsideration of the Application in view of the following remarks and the foregoing amended Specification, which includes twenty six (26) claims and makes reference to the same drawings and part numbers without enclosing new subject matters. The ensuing comments and remarks are in response to the Office Action of 11/30/98.

REJECTIONS UNDER 35 U.S.C. §112, Second Paragraph

1. The Examiner has sustained the previous rejection of Claims 1, 4, 8, 10, 13, 17, 21, 24-25, 27-28 as originally presented, and those dependent therefrom, under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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The forgoing amended Claims have been made to comply after further consideration. The invention, as defined in the foregoing amended Claims 1, 3, 10, and 17 and in those dependent therefrom, disclose an animated talking toy that is "RESPONSIVE TO RECEIVING AN EXTERNAL DIGITAL ANIMATION-CONTROL SIGNAL SEQUENCE AND AN EXTERNAL SOUND SIGNAL SEQUENCE" and is "OPERABLE BY AN EXTERNAL BINARY DIGITAL ANIMATION-CONTROL SIGNAL FOR CONTROLLING THE ANIMATION THEREOF", which is regarded as the subject matter of the invention.

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2. The Examiner has taken exception to certain claim language and identified certain cases of a lack of proper antecedent basis. The forgoing amended Claims have been made to correct the deficiencies in form identified by the Examiner after further consideration.

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The Applicant believes the Claims to now comply with the requirements of 35 U.S.C. §112, second paragraph, and respectfully requests that the Examiner withdraw the rejection thereof.

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REJECTIONS UNDER 35 U.S.C. §103

3. Applicant respectfully traverses the rejection of Claims 1, 2, 9, 12-14, 20-25, and 28, as amended on 09/02/98 in response to the Office Action of 04/30/99, under 35 U.S.C. §103(a), as

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being unpatentable over TONG. The Examiner's rejection will be addressed with respect to the foregoing independent Claims 1, 3, 10, and 17, while the rejection of those dependent therefrom will be addressed by showing that Claims 1, 3, 10, and 17 are non-obvious.

5 The invention defined in the foregoing Claim 17 disclose a combination of an animated talking toy and an external computing device, which two elements are also included in TONG's disclosure. However, for the reasons that follow indicating the substantial conceptual differences between the two disclosures with regard to detailed arrangement of the toy's actuation mechanism employed and the utilization of the external computing device, the Examiner has
10 failed to establish a *prima facie* case of obviousness of the foregoing Claims.

4. With respect to the computing device, TONG utilizes a computer to only send an analog sound signal to the toy. TONG does not employs the computer to generate a digital
15 synchronization control signal sequence for transmission to the toy, nor does TONG utilizes the computer to determine detailed text content of the toy's audio speech for synchronization purposes. TONG discloses an animated talking toy that is essentially the same as other prior art interactive talking toy of the type employing an external audio-video device, such as a TV, a radio, or a VCR, for providing analog sound signals for the toy, other than providing a different sound source.

20 In contrast, as described in the previous correspondence in response to the Office Action of 04/30/98, the present invention, as recited in the foregoing Claims and as originally-presented, utilizes a computing device for providing digital synchronization signals by analyzing the text
25 content of the toy's audio speech for controlling the toy's animation, as well as for providing analog sound signals for the toy. Tong fails to disclose employing a computing device of the type having "MEANS FOR GENERATING, BASED ON TEXTUAL CONTENT AND SPEED
OF SAID SELECTED AUDIO SPEECH, THE ANIMATION-CONTROL SIGNAL
SEQUENCE FOR TRANSMISSION" to the toy.

30 Therefore, the Applicant believes that the two disclosures render essential discrepancy in regarding the desired functionality of the computing device employed.

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5. With respect to the toy figure, the Examiner states that:

“TONG discloses providing a signal from the computer to the doll, which in turn moves the appropriate parts of the doll (mouth, arm, etc.) depending on whether the signal is present or not. Note that while the information within the signal is analog data, the dolls actuators respond to the presence or lack of the signal, taking not the audio data within, but the presence of the signal itself as a logic signal.” (Office Action: ¶ 4, 11/10/98)

Nevertheless, as defined in the foregoing Claims 1, 3, 10, and 17 in comparison with TONG:

1). As previously described, TONG discloses an animated talking toy of the type employing the same external sound signal for controlling the animation thereof as well as for supporting the audio output of the toy (2:44-50); Tong fails to disclose employing an actuation arrangement that is feasible for digital control, and fails to provide an animated talking toy of the type being controllable by an external signal that is estranged from the sound signal received by the toy;

2). The invention recited in the foregoing Claims utilizes an external digital control signal sequence that “COMPRISES A SEQUENCE OF A FIRST AND A SECOND BINARY LOGIC SIGNALS”, which has only two finite electrical voltage levels, as standardized by the digital electronics industry for representing the binary codes “1” and “0”, for controlling the actuator; In contrast, TONG utilizes an amplified analog sound signal sequence, having a continuous and alternating voltage level, thus being called analog signal, and being proportional to the intensity of the toy’s audio output, for driving the actuator (2:44-45, 52-57); Tong fails to provide an animated talking toy of the type with animation thereof being operable by a sequence of external signals that has only two finite electrical amplitude levels;

3). The invention defined in the foregoing Claims utilizes “MEANS FOR SELECTIVELY SWITCHING ELECTRIC CURRENT TO SAID ACTUATOR IN RESPONSE TO RECEIVING SAID BINARY LOGIC SIGNALS” for moving the movable portion of the toy, which operation may be conducted without the presence of the sound signal, thus *NOT depending on the presence or lack of the sound signal*; In contrast, TONG utilizes an amplifier to “increases the level of the audio signal” and a rectifier to “converts the amplified signal to a D.C. voltage which applied to the drive motors” (2:52-57), which arrangement requires that the drive motors utilized therein be actuated *only under the presence of the sound signal*, as recognized by the Examiner. TONG fails to provide an interactive toy of the type that

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can be animated without the presence of a sound signal;

4). The invention defined in the foregoing Claims discloses employing an actuation means for controlling whether to actuate the movable portion of the toy according to detailed information of the digital control signal received *instead of responding to the presence or lack of the signal*; "WHEREIN SAID MEANS FOR SWITCHING ELECTRIC CURRENT CONNECTS ELECTRIC CURRENT OF APPROPRIATE INTENSITY TO SAID WIRING COIL OF THE SOLENOID IN RESPONSE TO SAID CONTROL INPUT MEANS RECEIVING THE FIRST DRIVE-CONTROL SIGNAL SO AS TO MOVE SAID PLUNGER MEMBER AND THENCE SAID MOVABLE PORTION ATTACHED THERETO AND DISCONNECTS ELECTRIC CURRENT FROM THE WIRING COIL IN RESPONSE TO THE CONTROL INPUT MEANS RECEIVING THE SECOND DRIVE-CONTROL SIGNAL SO AS TO RETURN THE MOVABLE PORTION TO ITS DEFAULT POSITION"; In contrast, as described above, TONG utilizes an amplifier to "increases the level of the audio signal" and a rectifier to "converts the amplified signal to a D.C. voltage which applied to the drive motors ..." (2:52-57), which arrangement requires that the movable portion of the toy be ALWAYS actuated under the presence of the sound signal, as recognized by the Examiner; TONG fails to disclose employing an actuation means that can selectively activating the movable portion of the toy according to detailed information of the control signal received.

5). The invention defined in the foregoing Claims discloses employing an "ACTUATOR HAVING ONLY TWO PHASES FOR MOVING SAID MOVABLE PORTION"; In contrast, TONG employs a rotary D.C. motor for moving the movable portion of the toy. TONG fails to employ a drive device of the type having appropriate operation phases that are directly concurrent with the binary codes "1" and "0", and fails to disclose an animated talking toy of the type having a binary actuation arrangement that is feasible for digital operation and control.

6). Furthermore, with respect to the combined operation of the toy and the computer, the present invention defined in the foregoing Claims utilizes, when including a second movable body portion, a separate "SECOND DIGITAL CONTROL SIGNAL SEQUENCE" for controlling said second movable portion, such as the arms or the eyes of the toy figure, which arrangement allows "SAID MOVEMENT OF THE SECOND MOVABLE PORTION BEING INDEPENDENT OF THAT OF THE FIRST MOVABLE PORTION", so as to provide realistic supplementary animation for the toy figure; In contrast, TONG utilizes the same sound signal for supporting the sound speaker as well as for controlling all the D.C. motors within the

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toy's body (2:44-50, FIG.1-2); TONG's arrangement requires, in case of the toy including a second movable body part, that the movement of said second body part be substantially identical or concurrent with that of the first movable part, which is not realistic at all; TONG fails to provide an animated talking toy figure of the type that can be adapted to include realistic movement of a second articulated body part that is substantially independent of that of the first movable body part.

6. Therefore, the Applicant believes, with respect to the arrangement of the actuation means utilized for moving the movable portions of the toy figure, that the conceptual difference between TONG and the present invention, as defined in the foregoing Claims, is obvious.

Accordingly, the Applicant respectfully requests that the Examiner withdraw the aforesaid rejection under 35 U.S.C. §103(a) as being unpatentable over TONG.

7. Applicant respectfully traverses the rejection of Claims 3-8, 10, 15-19, 26 and 27, as amended on 09/02/98 in response to the Office Action of 04/30/99, under 35 U.S.C. 103(a), as being unpatentable over TONG in further view of Gasper, *et al.* (GASPER).

As previously described, TONG only employs the computer as a sound source for providing analog sound signals for transmission to the doll. TONG fails to utilize the computer as a digital device for providing digital signals of the type described hereinabove for transmission to the toy.

GASPER utilizes a real-time random-access interface software system or driver named RAVE scripting language and a descriptive and authoring language named RAVEL for controlling animation and sound synchronization (6:67-7:11) of an on-screen image, which software system utilizes very short timing unit so as to synchronize a sound signal sequence with as many as sixteen facial expressions, including eight lip positions (11:64-68) of the on-screen image. However, GASPER does not disclose means for adjusting the frequency of the image-actuation control according to the reaction or response time of the movable portion of the on-screen image, because said reaction time and the response operation presents little temporal restriction to the operation frequency of the image-actuation control.

In contrast, the present invention recited in the foregoing Claims discloses a three dimensional physical toy figure with a movable mouth that has two positions during the

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operation, i.e. "Open" and "Close", with actuation thereof being provided by a two-phase electro-mechanical drive device. It is understood that said drive device utilized has, compared with an on-screen image, a much longer response time which is dependent on the duty cycle, temperature, load, and the required stroke length of the device. Accordingly, the present invention provides means for constructing the control signal sequence "ACCORDING TO THE SPEED OF SAID PRESELECTED AUDIO SPEECH, THE REACTION TIME OF SAID ACTUATOR" and "ACCORDING TO THE SPEED AND TOTAL TIME OF EACH CONTINUOUS PORTION OF SAID AUDIO SPEECH".

8. The Examiner states that:

"It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the method of sound analysis used in GASPER in the invention of TONG in order to efficiently and accurately analyze and coordinate the inputted user sounds with the movement signals sent to the doll of TONG"

As previously described, TONG utilizes an amplifier to "increases the level of the audio signal" and a rectifier to "converts the amplified signal to a D.C. voltage which applied to the drive motors" (2:52-57), which actuation arrangement does not facilitate operation control of the movable portion of the toy by a digital signal transmitted from a computer at all; While GASPER disclose a software system that does not provide any method for adjusting the operation frequency of the actuation control according to the speed of the selected audio speech and the reaction time of the drive device.

9. Therefore, it is respectfully submitted that the Examiner's combination of TONG and GASPER is not functional feasible at all, the applicant does not believes that any of these references, either individually or in combination, render any of the foregoing Claims unpatentable, and that the alleged combination does not establish a *prima facie* rejection.

Accordingly, the Applicant respectfully requests that the Examiner withdraw the aforesaid rejection under 35 U.S.C. §103(a) as being unpatentable over TONG in further view of GASPER.

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CONCLUSION

10. For the foregoing reasons, it is submitted that reconsideration of the application, as amended, pursuant to 37 C.F.R. §1.112 is respectfully requested, and the application is in condition for allowance.

Should any fee be due in connection with this filing, please inform the Applicant at your earliest convenience.

Respectfully submitted,

By: 

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